

A NEW SPECIES OF *SIRTHENEA* SPINOLA (HETEROPTERA: REDUVIIDAE)
FROM KOREA

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Abstract.—*Sirthenea koreana*, new species, is described from Korea. It is similar to *S. dimidiata* Horváth but differs by the yellow head and numerous yellow areas on the ventral side of the abdomen.

Key Words: Heteroptera, Reduviidae, *Sirthenea*, Korea

Three species of the genus *Sirthenea* Spinola were known from the East Palearctic (Cai and Lu 1990). *Sirthenea flavipes* (Stål 1855) is distributed in nearly the whole Oriental Region, South China (to 37° N) and Japan (Honshu, Kyushu, Shikoku). It was recorded also from Korea (Central, South, Chejudo - Okamoto 1924; Maruda 1929; Lee and Kwon 1991; etc.), but it is evident that records from Central and partly from South Korea were based on the new species described below. *Sirthenea dimidiata* Horváth, 1911 is distributed in South China (to 30° N) and in Taiwan (type locality). *Sirthenea melanota* Cai and Lu, 1990 is described from one male collected in the Shaanxi Prov. of China. Comparison with specimens of *S. flavipes* and descriptions of two other species shows that most Korean specimens belong to an undescribed species.

Following abbreviations are used for collections in Korea, in which the type material of the new species is kept (curators are indicated in parentheses): ASI—Department of Entomology, Agricultural Sciences Institute, Rural Development Administration, Suwon (Dr. S.B. Ahn); CL—collection of Prof. C.E. Lee, Taegu; CNU—Depart-

ment of Agricultural Biology, Chungnam National University, Taejon (Prof. K.R. Choe); EWUB—Department of Biology, Ewha Womans University, Seoul (Prof. B.J. Rho); EWUM—Natural History Museum, same University (Prof. I.R. Lee); GNU—Department of Biology, Gyeongsang National University (Prof. J.S. Park); KPNU—Department of Agricultural Biology, Kyungpook National University, Taegu (Prof. Y.J. Kwon); SNUS—College of Agriculture and Life Sciences, Seoul National University, Suwon (Prof. K.S. Woo); TU—Department of Biology, Taejon University, Taejon (Prof. S.H. Nam).

Sirthenea koreana Lee and Kerzhner,
NEW SPECIES
(Figs. 1-7)

Description.—*Color.* Head yellow, with brown to black subtriangular spot in ocellar area usually subdivided partly or completely by light median stripe; in darkest specimens, this spot prolonged back to hind margin of head, in females sometimes absent; lateral parts usually with more or less distinct oblique brownish stripe from base of rostrum to lower border of eye and then to hind margin of head; in darkest specimens,

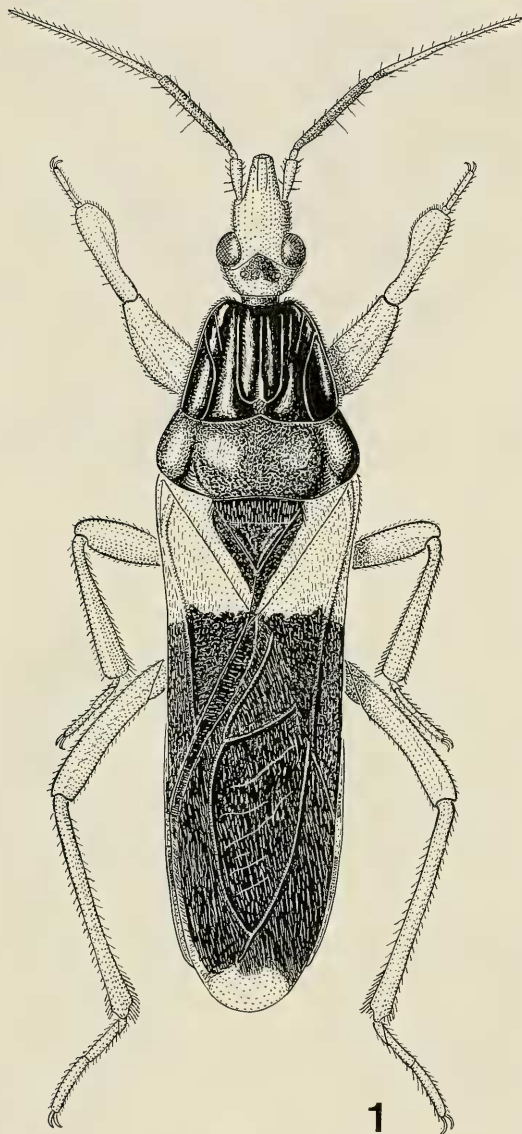


Fig. 1. *Sirthenea koreana*, male paratype.

also with brown spot behind eye. Antenna yellow; segment II and base of segment III brown, but intercalary segments yellow. Rostrum yellow. Fore lobe of pronotum black; hind lobe brown to black. Scutellum black. Hemelytra yellow at base; inner half of clavus and all corium behind apex of clavus dark brown to black. Membrane black with whitish apical spot. Legs yellow, without embrowned areas. Ventral side of thorax dark brown to black, propleurae behind su-

ture paler, acetabulae yellow. Abdomen beneath dark brown to black, segment II, median part of segment III, anterior half of connexival segments III–VI, connexival segment VII, and genital segments in both sexes yellow.

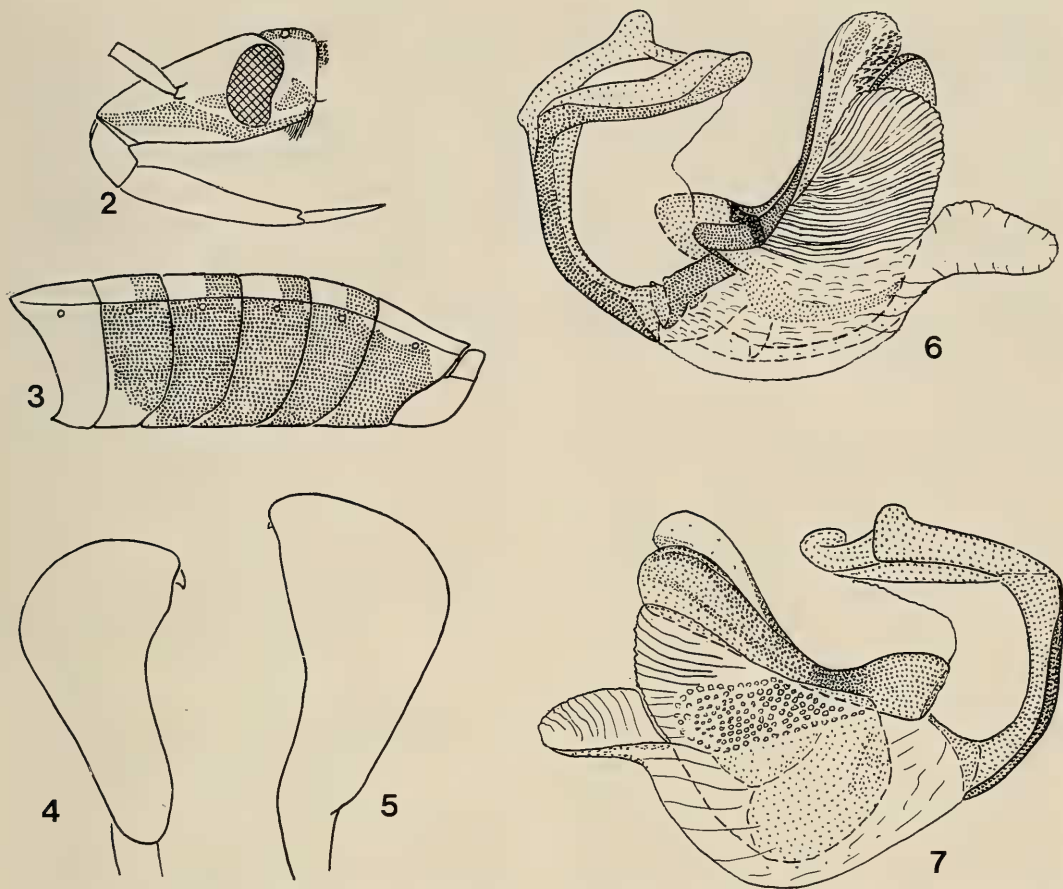
Structure: Head porrect; antecular part much longer than postocular one. Antennal segment I reaching or slightly surpassing apex of head, segment II distinctly longer than III and IV. Rostral segment II not surpassing hind margin of head. Fore lobe of pronotum with distinct median and lateral furrows. Hemelytra in male nearly reaching to slightly surpassing apex of abdomen, in female reaching middle to hind margin of abdominal segment VI. Fossa spongiosa of fore legs 0.4 times as long as fore tibia. Exterior margin of metepisterna with 2 parallel, equally developed carinae.

Male genitalia as figured (Figs. 4–7).

Measurements (in mm, females in parentheses): length 19–22 (23–24), width at pronotum 4.5–5.1 (4.5–4.8), at abdomen 4.1–4.6 (4.5–4.8), head length 3.4–3.8 (4.2–4.5), antecular part 2.0–2.2 (2.5–2.6), postocular part 0.55–0.60 (0.7–0.8), head width 2.1–2.3 (2.3–2.5), interocular distance 1.0–1.1 (1.25–1.30), interocellar distance 0.55–0.60 (0.60–0.65), length of antennal segments (I–IV) 1.1–1.2 (1.2–1.3), 2.45–2.90 (2.2–2.4), 2.0–2.3 (1.8–1.9), 2.1–2.2 (2.0), length of rostral segments (I–III) 0.9–1.0 (1.1–1.2), 2.5–2.9 (3.5–3.7), 1.5–1.6 (1.6–1.7), length of fore pronotal lobe 2.9–3.2 (3.4–3.7), of hind pronotal lobe 1.8–2.0 (1.6–1.8), of scutellum 1.8–2.0 (1.8–2.0), of hemelytra 12.2–13.7 (11.2–12.1).

Variation.—In both specimens from Dae-deong, the exterior vein of clavus is brown and basal part of corium exterior to vein *Cu* light brown, so that only a longitudinal stripe on clavus and the interobasal part of corium remain yellow. Also legs, especially hind tibiae, are darkened in these specimens. No other differences are found.

Nymph (IV instar).—Head, rostrum and antennal segment I yellow; antennal seg-



Figs. 2-7. *Sirthenea koreana*. 2, Head, lateral view. 3, Abdomen, lateral view. 4, Right paramere. 5, Left paramere. 6, 7, Aedeagus in two positions.

segments II and III, except their intercalar segments, brown (segment IV missing). Thorax and wing pads black. Legs yellow, hind femora in distal half (except apex) and hind tibiae (except both ends) brownish black. Abdomen yellow, more or less reddish dorsally and lateroventrally; round spots around openings of scent glands on segments III-V, square spots in postero-exterior corners of segments IV-VII, and segments VIII-IX black. Measurements (in mm): head length 3.4, width 1.95, antennal segments length I 1.0, II 1.6-1.8, III 1.5, pronotum length 3.2, width 3.3-3.4, body length 17-19.

Holotype: Male, KOREA, KYONG-SANGPUKTO, mountains S of Taegu, 24.VI.1970, C.E. Lee (CL).

Paratypes (all from Korea).—KYONG-GIDO: Anseong, 30.V.1983, P.C. Hi, 1 male (EWUM); Enjeongbu, 3.VI.1966, B.J. Rho, 1 male (EWUB); Pokwangsa, 20.IV.1981, B.J. Rho, 1 male (EWUB); Kwacheon, 28.V.1972, B.J. Rho, 1 male (EWUB); Kuanak Mts, 15.V.1965, B.J. Rho, 1 male (EWUB); Kwangneung, 28.V.1973, S.M. Lee, 2 males (KPNU); Mt. Wangbang, 7.VI.1974, S.M. Lee, 1 male (KPNU); Suweon, 28.V.1987, C.J.Y., 1 male (SNUS); Suweon, 3.VI.1987, Y.H. Ko, 3 males (SNUS); Suweon, 10.VI.1985, D.S. Yang, 1 male (SNUS); Suweon, 10.VI.1987, S.J.H., 1 male (SNUS); Suweon, 21.VI.1985, S.B. Ahn, 1 female (ASI); Suweon, 8.VII.1974, K.K. Choi, 1 male (ASI); Sui-gen (= Suweon), 1.III.1925, T. Hanaya, 1

male (ASI); Sugien (= Suweon), 22.VI.1926, Yugato, 1 male (ASI); Suweon, 15.VI.1968 and 25.V.1969, D.S. Lee, 2 males (ASI); Suweon, 1. and 16.VI.1987, S.H. Kim, 2 males (ASI); Koangleung, 10.VI.1990, K.T.J., 1 male (SNUS); Koanggyo, 22. and 30.VI.1987, J.J.H., C.S.R., H.Y.S. and K.H.G., 4 males (SNUS); Yonseuprim, 2.VI.1988, W.B.H., 1 male (SNUS); Mt. Suri, 7.VI.1968, J.C. Jeung, 1 male (SNUS); Sumokweon, 6.VI.1987, Y.K.H., 1 male (SNUS). KANGWONDO: Cheongpyoung, 31.V.1987, C.W. Lee, 1 female (SNUS); Cheongpyoung, 18.VI.1987, Y.K. Chung, 1 male (SNUS). CHOLLA-PUKTO: Mt. Jirisan, 25.V.1988, B.L.O., 1 male (CNU). CHOLLANAMDO: Muan, 1-5.VI.1991, R.G.O., 1 male (ASI); Goheung, 26-27.V.1991, R.G.O., 1 male (ASI). KYONGSANGPUKTO: as holotype, 1 male (CL); Chilgok Eup, 31.V.1983, Y.J. Kwon, 2 males, 1 female (KPNU, 1 male in Zoological Institute, St. Petersburg); same locality, 21.VI.1990, Y.J. Kwon, 1 male (KPNU); Mt. Tohamsan, 30.V.1984, Y.J. Kwon, 1 male (KPNU); Kyongpook University, Taegu, 10.VI.1968, K.L. Choi, 1 male (SNUS); same locality, 5.VI.1987, K.I.J., 2 males (SNUS); same locality, 12.VI.1992, K.S.S., 1 female (SNUS); Weolseong, 6.VI.1989, L.H.M., 1 male (SNUS); Hwasan, 28.IV.1968, C.S. Kim, 1 male (SNUS); Mt. Pomun, 20.V.1989, Y.H. Cho, 1 male (CNU). KYONGSANGNAMDO: Jinyanggun, Hysongseokkyon, Sinpungri, 30-31.V.1992, E.H. Kim, 1 male (GNU); Jinyang, Socksari, 15. and 23.V.1987, J.S. Jeon and Y.S. Ryu, 2 males (GNU); Sancheonkun, Chuckdong Myeon, Boechunri, 25.V.1987, W.H. Paik, 1 male (GNU); Hamyangkun, Seohari, 31.V.1987, J.S. Park, 1 male (GNU); Hoseong, 24.V.1987, H.G. Kang, 1 nymph (GNU); Okcheon, 20.V.1989, G.S. Kim, 1 male (CNU); Simcheon, 28.V. and 3.VI.1993, K.S.I., 2 males (CNU). CH'UNGCH'ONGPUKTO: Noeundong, 4.VI.1982, W.Y. Lee, 1 male (CNU). CH'UNGCH'ONGNAMDO: Nonsan, 5.VI.1972, S.M. Lee, 1 male (KPNU);

Taejon, Yongmundon, 31.V.1988, S.M. Cha, 2 males (TU); Taejon, Yooseong, 4.VI.1987, H.D. Park, 1 male (TU); Gujeuk, 17.V.1987, H.G. Yun, 1 male (CNU); Buyou, 15.V.1988, H.J. Kim, 1 male (CNU); Yuseong, 6.VI.1981, G.S. Kim, 1 male (CNU); Yuseong, 13.V.1988, G.S. Yeem, 1 male (CNU); Chungnam University, 31.V.1990, B.J. Yeem, 1 male (CNU); Sannae, 28.V.1993, L.H.J., 1 nymph (CNU); Mt. Kyeryong, V.1989, S.L. Lee, 1 male (CNU); Mt. Kyeryong, 31.V., Y.S. Kim, 1 male (CNU); Daedeag, 12.VI.1980, K.R. Choe, 2 males (ASI); Nonsan, 10.V.1991, R.G.O., 2 males (ASI and Zoological Institute, St. Petersburg); Yaecheon, 1-5.VI.1991, R.G.O., 1 male (ASI); Cheonan, 9.VII.1991, R.G.O., 1 male (ASI); Yongweondong, 22.V.1991, T.K. Kim, 1 male (TU). Province unknown; Mt. Dapgok, 22.VI.1988, B.H. Lee, 2 males (SNUS). Without labels: 1 male (CNU).

Comparison.—The new species differs well from other Palearctic species in coloration. In *S. flavipes*, the fore lobe of pronotum, except fore margin and furrows, is yellow, head laterally with a black longitudinal stripe crossing the eye, hemelytra (both) with 3 yellow spots in the fore half, of which two are basal and the third is placed behind scutellum (f. *apicalis* Signoret) or, if the spots are united in one large spot (f. *typica*), the hind margin of this spot is with quadrangular protuberance in middle; the ventral side of abdomen is with a median yellow stripe reaching segment VII; inner carina of metathorax widely obliterated in the middle; hemelytra nearly reaching apex of abdomen in female. In *S. melanota* coloration of hemelytra is as in *S. flavipes* f. *apicalis* but basal light spots of hemelytra are much smaller, besides the fore lobe of pronotum, ventral side of head and most of abdominal segment II are black. *Sirthenea dimidiatus* is very similar to the new species in coloration of hemelytra and pronotum, but the head, rostral segment I and nearly the whole ventral side of abdomen are black, tibiae and tarsi of

middle and hind legs fuscous. The new species is intermediate between *S. dimidiatus* and *S. flavipes*, sharing coloration of pronotum and hemelytra with the first and of head and abdominal venter with the second.

The following specimens of *S. flavipes* from Korea were examined by us: Chollanamdo Prov., Pokildo I., Chunri, 21.VII.1981, N.J. Yun, 1 female (EWUM); Kyongsangnamdo Prov., Jinyang, 26–30.VIII.1992, R.G.O., 1 male (ASI); Chejudo I., Seogwipo, 1. and 13. IX.1975, H.S. Kim. 1 male, 1 female (ASI). All of them belong to f. *apicalis*.

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